PROCEEDINGS

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TWO NEW TERMITES FROM COSTA RICA

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Early in January, 1934, Ferd. Nevermann, of San José, Costa Rica, sent me some additional collections of termites. Two species appear to be new, which is somewhat surprising in view of Mr. Nevermann's previous intensive collecting. Descriptions of the new species, together with a list of the known termites of Costa Rica, are given herewith.

Kalotermes (Glyptotermes) bilobatus, n. sp.

Soldier.—Head light yellow, darker (yellow-brown) anteriorly, front nearly vertical, slightly concave, a deep U-shaped incision at front, with lobes prominent, elevated, and roughened. Eye spot hyaline. Two transverse rows of hairs on head. Gula narrow in middle.

Mandibles piceous, broad; left mandible with two pointed teeth near apex and a third near middle; right mandible with two larger teeth near base.

Antennae with 12 to 13 segments, third segment smaller than second or fourth, fourth and second subequal or, where antennae are 13-segmented, fourth segment shorter than second.

Pronotum about same color as head, concave anteriorly and shallowly emarginate posteriorly, posterior margin slightly serrate, with long hairs on margins.

Abdominal tergites white, with a row of long hairs at base of each tergite.

Measurements:

Length of entire soldier	8.00-9.00 mm.
Length of head with mandibles	3.50
Length of head without mandibles	2.40
Length of left mandible	1.10
Length of pronotum	
Length of hind tibia	0.95
Width of head	1.50-1.60
Width of pronotum	1.50-1.60
17—Proc. Biol. Soc. Wash., Vol. 47, 1934.	(95)

The two elevated lobes at the front of the head are the distinguishing characters of this termite. This species is lighter in color, larger, and has more segments in the antennae, and has more prominent head lobes than *marlatti* Snyder.

Type locality.—Hamburg Farm, Costa Rica. Described from three soldiers collected with nymphs in dry log at the type locality, 1, V, 1933, by F. Nevermann.

Cotypes.—Soldiers, U. S. National Museum, Catalog no. 50213.

Anoplotermes (Anoplotermes) pyriformis, n. sp.

Winged adult.—Head castaneous brown, with dense long hairs. Fontanelle large, hyaline, pear-shaped, not quite so large as an ocellus. Post-clypeus yellow-brown, three times as broad as long. Eyes black, not round, close to lateral margin of head. Ocelli hyaline, suboval, projecting, separated from eye by a distance less than the diameter of an ocellus.

Mandibles reddish brown at margin.

Antennae with 15 segments, third segment shorter than second or fourth. Pronotum slightly lighter in color than head, shallowly emarginate posteriorly, with dense long hairs.

Wings gray, costal area yellow-brown, tisue finely punctate and hairy, in fore wing median branches to apex, slightly above center of wing, nearer to cubitus than to subcosta.

Abdominal tergites gray-brown, with dense long hairs.

Measurements:

Length of entire female winged adult	10.50-11.00 mm.
Length of entire male winged adult	10.00-10.50
Length of entire female dealated.	6.00
Length of entire male dealated	5.00- 5.50
Length of head	1.20
Length of left mandible	
Length of pronotum	0.60
Length of hind tibia	1.00
Length of anterior wing of female	
Long diameter of eye	0.25
Width of head (at eyes)	
Width of pronotum	0.70
Width of anterior wing of female	3.20
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The hyaline, large, pear-shaped fontanelle characterizes this termite. The fontanelle is larger than in *punctatus* Snyder.

Type locality.—Hamburg Farm, Costa Rica. Described from a series of winged adults collected at light, 25, IX, 1930, by F. Nevermann.

Cotypes.—Winged adults, U. S. National Museum, catalog no. 50214.

LIST OF TERMITES FROM COSTA RICA.

Family Kalotermitidae.

Kalotermes:

(Neotermes):

brevinotus Snyder.

castaneus Burm.

holmgreni Bks.

(Kalotermes):

contracticornis Snyder.

snyderi Light.

(Rugitermes):

costaricensis Snyder.

kirbyi Snyder.

(Calcaritermes):

asperatum Snyder.

 $emarginicollis \ {\bf Snyder.}$

fairchildi Snyder.

(Cryptotermes):

brevis Walker.

cavifrons Bks.

dudleyi Bks.

(Glyptotermes):

angustus Snyder.

bilobatus Snyder.

marlatti Snyder.

nevermani Snyder.

planus Snyder.

suturis Snyder.

Family Rhinotermitidae.

Heterotermes tenuis Hagen.

Coptotermes niger Snyder.

Prorhinotermes molinoi Snyder.

1 Torninotermes mout

Family Termitidae.

Cornitermes (Cornitermes) acignathus Silv., subsp. costari-

censis Snyder.

Armitermes:

(Armitermes) chagresi Snyder.

(Rhynchotermes) major Snyder.

Nasutitermes (Nasutitermes):

columbicus Holmgren.

cornigera Motsch.

ephratae Holmgren.

pilifrons Holmgren.

rotundatus Holmgren.

Anoplotermes (Anoplotermes):

linearis Snyder.

pyriformis Snyder.

Cylindrotermes macrognathus Sny-

der

Mirotermes (Mirotermes) pana-

maensis Snyder.

Capritermes (Neocapritermes) cen-

tralis Snyder.

Microcerotermes sp.

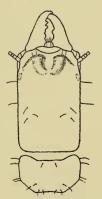


Fig. 1. Kalotermes (Glyptotermes) bilobatus Sny. Soldier. Dorsal view of head and pronotum to show the two elevated lobes. Enlarged 12 times. Drawn by Mr. H. B. Bradford.

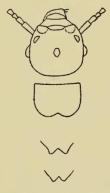


Fig. 2. Anoplotermes (Anoplotermes) pyriformis Sny. Winged adult. Dorsal view of head and thorax. Enlarged 18 times. Drawn by Mr. H. B. Bradford.